

Title (en)

Frequency translation by high-frequency spectral envelope warping in hearing assistance devices

Title (de)

Frequenzumsetzung mittels Warping der hochfrequenten spektralen Hüllkurve bei Hörhilfegeräten

Title (fr)

Transposition en fréquence par réajustement à haute fréquence de l'enveloppe spectrale pour prothèses auditives

Publication

**EP 2099235 A3 20120222 (EN)**

Application

**EP 09250638 A 20090305**

Priority

US 4382708 A 20080306

Abstract (en)

[origin: EP2099235A2] Disclosed herein, among other things, is a system for frequency translation by high-frequency spectral envelope warping in hearing assistance devices. The present subject matter relates to improved speech intelligibility in a hearing assistance device using frequency translation by high-frequency spectral envelope warping. The system described herein implements an algorithm for performing frequency translation in an audio signal processing device for the purpose of improving perceived sound quality and speech intelligibility in an audio signal when presented using a system having reduced bandwidth relative to the original signal, or when presented to a hearing-impaired listener sensitive to only a reduced range of acoustic frequencies.

IPC 8 full level

**H04R 25/00** (2006.01)

CPC (source: EP US)

**H04R 25/353** (2013.01 - EP US); **H04R 25/505** (2013.01 - EP US); **H04R 2225/43** (2013.01 - EP US); **H04R 2430/03** (2013.01 - EP US)

Citation (search report)

- [Y] WO 2007010479 A2 20070125 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- [Y] US 2006247922 A1 20061102 - HETHERINGTON PHILLIP [CA], et al
- [A] SOTARO SEKIMOTO ET AL: "Frequency Compression Techniques of Speech using Linear Prediction Analysis-Synthesis Scheme", ANN BULL RILP, vol. 13, 1 January 1979 (1979-01-01), pages 133 - 136, XP055016130

Cited by

WO2012041373A1; EP3148220A3; US8923538B2; US9843875B2; US10313805B2; US10575103B2; US11223909B2; US11736870B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2099235 A2 20090909**; **EP 2099235 A3 20120222**; **EP 2099235 B1 20170830**; DK 2099235 T3 20171204; US 2009226016 A1 20090910; US 2012177236 A1 20120712; US 8000487 B2 20110816; US 8761422 B2 20140624

DOCDB simple family (application)

**EP 09250638 A 20090305**; DK 09250638 T 20090305; US 201113208023 A 20110811; US 4382708 A 20080306